

REMARKS

By the present amendment, claims 18, 20, 23, 38, 39, 41-44 and 50 have been amended. Claims 1-17 and 27-36 were previously canceled.

Claims 18-28 and 37-50 remain pending in the application. Reconsideration and allowance of all of the claims is respectfully requested in view of the following remarks.

In regard to Rejection of Claims 18-20, 24-28, 37-41 and 45-50 Under 35 USC § 103(a)

The Examiner has rejected claims 18-20, 24-28, 37-41 and 45-50 under 35 U.S.C. § 103(a), as being unpatentable over Koerner, U.S. Patent No. 6,820,584, in view of Bouse, U.S. Publication No. 2004/0019461. The Applicants believe this rejection has been addressed and overcome by the present amendment.

The Examiner's attention is directed to the following feature of claim 18 as amended:

wherein the set of indicators provides at least one form of feedback to a user regarding at least an operational condition at engine start-up

and the following feature of claim 38 as amended:

wherein the at least one fault indicator provides at least one form of feedback to a user regarding at least an operational condition at engine start-up

The Applicants submit that at least the above features of claims 18 and 38 as amended are not taught by Koerner.

Referring to paragraph [0034] of the specification as originally filed,

[r]egardless of the system checked, it is preferred that if all checked systems are operating properly that all the indicators are activated (or lit) during engine start-up. In this regard, the lack of illumination of a particular indicator operates as an indication to the vessel operator or service technician of an engine start-up fault. Additionally, it is preferred that normal operation of the motor be prevented if an engine start-up error is detected. To this end, the engine may be prevented from

starting or allowed to start in a “limp-home” mode to prevent irreparable damage to the engine and/or motor components. Such a “limp-home” mode would limit engine speed or operation.

It is apparent that if an error is detected during engine start-up, the engine may be prevented from starting. Alternatively, the engine may be prevented from entering a normal running mode. Therefore, the engine start-up stage refers to a time before the engine has been started until the running mode of the engine has been entered.

Referring to lines 29-32 of column 4 of Koerner,

The warning system 40 is preferably configured to at least notify an operator and/or technician of the low oil pressure condition indicating oil flow through the distribution manifold 44 is malfunctioning.

It is apparent that Koerner teaches notifying an operator or technician of low oil pressure conditions. The low oil pressure notification of Koerner is indicative of a malfunction in the distribution manifold 44 of Koerner whose function is to deliver oil to the fuel system for oiling the fuel injection system. Oil circulation in the engine 12 of Koerner only occurs after the engine 12 has been successfully started, and therefore an indication of a malfunction in the distribution manifold 44 can only occur during engine operation, and not at engine start-up. Other fault conditions disclosed by Koerner, such as engine speed exceeding an RPM limit (lines 35-36 of column 4) similarly cannot occur during engine start-up. As such, Koerner teaches notifying an operator and/or technician of a condition that does not occur until after engine start-up has been completed. Therefore, Koerner does not teach providing feedback to a user regarding an operational condition at engine start-up.

This deficiency in Koerner is not remedied by Bouse, without admitting that Bouse can be combined with Koerner and reserving the right to argue thereagainst in the future.

Referring to paragraph [0024] of Bouse,

[d]uring operation of the plant 10, the sensors 46 (which are preferably permanently mounted on the rotating equipment 42) send signals to the diagnostic unit 44 which then processes the received signals in any desired manner to produce indications of one or more conditions associated with the rotating equipment 42.

Referring also to paragraph [0036] of Bouse,

the diagnostic unit 44 or 88 is preferably configured to operate substantially continuously during operation of the rotating equipment to detect conditions associated with the rotating equipment, that is to operate continuously or on a periodic time frame with a small interval, e.g., once every minute or couple of minutes.

It is apparent that the diagnostic unit 44 receives signals from the sensors 46 during operation of the equipment in the plant 10. The diagnostic unit 44 of Bouse detects conditions associated with the continued running of the rotating equipment. Bouse makes no mention of the diagnostic unit 44 detecting conditions relating to start-up of an engine or any other equipment, and by extension Bouse does not teach providing feedback regarding an operational condition at start-up. Therefore, Bouse does not teach providing feedback to a user regarding an operational condition at engine start-up.

This deficiency in Koerner is also not remedied by the Examiner's assertion that the provision of fault indicators on the dashboard is old and well known in the art.

Therefore, at least one feature of claims 18 and 38 as amended is not taught by Koerner or Bouse, alone or in combination, which combination is not admitted. As such, the Examiner is requested to withdraw his rejection of claim 18 and claims 19, 20, 24-28 and 37 depending therefrom, as well as claim 38 and claims 39-41 and 45-50 depending therefrom.

In regard to Rejection of Claims 38-40, 45 and 47-49 Under 35 USC § 103(a)

The Examiner has rejected claims 38-40, 45 and 47-49 under 35 U.S.C. § 103(a), as being unpatentable over Koerner. The Applicants believe this rejection has been addressed and overcome by the present amendment.

The Examiner's attention is directed to the following feature of claim 38 as amended:

wherein the at least one fault indicator provides at least one form of feedback to a user regarding at least an operational condition at engine start-up

As discussed above with respect to claims 18-20, 24-28, 37-41 and 45-50, the above feature of claim 38 is not taught by Koerner, and this deficiency in Koerner is not remedied

by the Examiner's assertion that the provision of fault indicators on the dashboard is old and well known in the art.

Therefore, at least one feature of claim 38 is not taught by Koerner or the Examiner's assertion, alone or in combination. As such, the Examiner is requested to withdraw his rejection of claim 38 and claims 39, 40, 45 and 47-49 depending therefrom.

In regard to Rejection of Claims 18-24, 26-28, 37, 41-44 and 50 Under 35 USC § 103(a)

The Examiner has rejected claims 18-24, 26-28, 37, 41-44 and 50 under 35 U.S.C. § 103(a), as being unpatentable over Koerner in view of Renz, U.S. Patent No. 3,960,011. The Applicants believe this rejection has been addressed and overcome by the present amendment.

The Examiner's attention is directed to the following feature of claim 18 as amended:

wherein the set of indicators provides at least one form of feedback to a user regarding at least an operational condition at engine start-up

and the following feature of claim 38 as amended:

wherein the at least one fault indicator provides at least one form of feedback to a user regarding at least an operational condition at engine start-up

As discussed above with respect to claims 18-20, 24-28, 37-41 and 45-50, the above features of claims 18 and 38 are not taught by Koerner, and this deficiency in Koerner is not remedied by the Examiner's assertion that the provision of fault indicators on the dashboard is old and well known in the art.

This deficiency in Koerner is not remedied by Renz, without admitting that Renz can be combined with Koerner and reserving the right to argue thereagainst in the future.

Referring to lines 5-10 of column 1 of Renz, Renz

relates to monitoring and annunciating systems and, more particularly, to such systems used to monitor the operation of an internal combustion engine, such as a diesel engine or the like, and to annunciate which of a plurality of monitored

operating parameters or conditions has caused engine shut down.

It is apparent that Renz teaches monitoring an engine during its operation to determine a cause of engine shut down. Renz makes no mention of, and has no need for, feedback regarding an operational condition at engine start-up. Therefore, Renz does not teach providing at least one form of feedback to a user regarding at least an operational condition at engine start-up.

Therefore, at least one feature of claims 18 and 38 is not taught by Koerner or Renz, alone or in combination, which combination is not admitted. As such, the Examiner is requested to withdraw his rejection of claim 18 and claims 19-24, 26-28 and 37 depending therefrom, as well as claims 41-44 and 50 depending from claim 38.

In regard to Rejection of Claims 25 and 46 Under 35 USC § 103(a)

The Examiner has rejected claims 25 and 46 under 35 U.S.C. § 103(a), as being unpatentable over Koerner in view of Renz, and further in view of Boisvert, U.S. Patent No. 5,729,456. The Applicants believe this rejection has been addressed and overcome by the present amendment.

Claims 25 and 46 are believed to be allowable in view of their dependency from claims 18 and 38, respectively, for the reasons discussed above with respect to claims 18-20, 24-28, 37-41 and 45-50 regarding Koerner, and the additional reasons discussed above with respect to claims 18-24, 26-28, 37, 41-44 and 50 regarding Renz, as well as for the additional features recited therein. As such, the Examiner is requested to withdraw his rejection of claims 25 and 46.

Miscellaneous Amendments

By the present amendment, claims 18 and 38 have been amended. This amendment is supported by the specification as originally filed, as it consists of grammatical corrections and the deletion of features previously recited in the claims.

By the present amendment, claim 20 has been amended to be consistent with the amendment to claim 18.

By the present amendment, claim 23 has been amended to correct its dependency in view of the amendment to claim 18. Claim 23 now depends from claim 37.

By the present amendment, claims 39, 41-44 and 50 have been amended to be consistent with the amendment to claim 38.

By the present amendment, claim 44 has been amended to correct its dependency in view of the amendment to claim 38. Claim 44 now depends from claim 50.

In view of the above remarks, the Applicants respectfully submit that all of the currently pending claims are allowable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in a better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

At the time of filing of the present response, the Office was authorized to charge the fees believed to be necessary to a credit card. In case of any under- or over-payment or should any additional fee be otherwise necessary, the Office is hereby authorized to credit or debit (as the case may be) Deposit Account number 502977.

Respectfully submitted,

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